

CLASSIFIED MESSAGE

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TO :

FROM :

SUBJECT:

INFO :

IN-75911 25X1A6c

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TO

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~~SECRET~~ 222210Z CITE [REDACTED] 8251

IMMEDIATE [REDACTED] INFO [REDACTED] 25X1A6c

IDEALIST [REDACTED] AVIONICS MAT 25X1A2g

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FROM [REDACTED] TO [REDACTED]

THE FOLLOWING IS A REPORT RECEIVED FROM THE VENDOR IN CONNECTION WITH THE SYSTEM 20 FLIGHT TEST ON 17 NOV. QUOTE:

THE FLIGHT OF 17 NOV WAS COMPLETED WITH INTACT OSCILLOGRAPH RECORDS OF INDICATOR LIGHT TIME ON AND OFF AND APPARENT TARGET LOCATIONS IN THE FIELD OF VIEW. A PRELIMINARY REVIEW OF THE TAPE HAS BEEN CONDUCTED. THE NUMBER OF INDICATIONS (I.E., COMMON AMPLIFIER THRESHOLD EXCEEDENCES) WERE SUFFICIENTLY RARE AND SPACED SO THAT NO INTERFERENCE WHATEVER IS EXPECTED WITH EVALUATION OF TARGET TEST FLIGHTS. BASED ON ROUGH KNOWLEDGE OF THE AIRCRAFT TARGETS ANGULAR LOCATION AS A FUNCTION OF TIME, THRESHOLD INDICATIONS CAN BE UNAMBIGUOUSLY ASSOCIATED WITH THE TARGETS AS THEY ARE DETECTED. FROM THE FALSE ALARM POINT OF VIEW THERE WERE SEVERAL LIGHT INDICATIONS ON THE FLIGHT OF 17 NOV DUE TO SOURCES REQUIRING

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ELIMINATION OR QUALIFICATION. THERE ARE FOUR CATEGORIES OF POTENTIAL INDICATION SOURCES INTO WHICH THE EVENTS OF 17 NOV CAN BE GROUPED. ONE SOURCE IS AN INFREQUENT NOISE BURST POSSIBLY DUE TO A SINGLE CHANNEL AMPLIFIER WHICH CONTINUES FOR A PERIOD OF MORE THAN 7 SECONDS AND CAUSES MULTIPLE LIGHTS TO APPEAR FOR ONE HOLD PERIOD AND THEN GO OFF. A SECOND CATEGORY OF INDICATIONS OCCUR IN AIRCRAFT TURNS WHICH MAY BE DUE TO SHORTENED RANGE TO THE GROUND. A THIRD CATEGORY OF INDICATIONS OCCURRED AT THE UPPER LIMIT BEYOND THE REQUIRED ELEVATION FIELD OF VIEW DURING PERIODS IN WHICH THE SUN IS NEAR THE SENSOR FIELD OF VIEW. MASKING OF THE DOME TO ATTENUATE THE UNNECESSARY HIGH ELEVATION ANGLES WILL BE ACCOMPLISHED ON SUBSEQUENT FLIGHTS. THE FOURTH CATEGORY INCLUDES A VERY FEW BRIEF INDICATIONS WHICH MAY HAVE BEEN AIRCRAFT OR GROUND TARGETS. A DETAILED ANALYSIS OF EACH INDICATION IS IN PROCESS. DECISIONS ON THE FINAL SYSTEM ELEVATION ANGLE MASKING AND DETECTOR THRESHOLDING MUST NECESSARILY DEPEND ON THE RESULTS OF THE TARGET FLIGHTS. IN SUMMARY, NO DIFFICULTIES PRESENTLY EXIST WHICH WOULD IMPAIR THE ABILITY TO ACCOMPLISH THE TARGET FLIGHT OBJECTIVES. IN PARTICULAR THE INDICATIONS FROM ALL EXTRANEIOUS SOURCES OBSERVED TO DATE ARE SUFFICIENTLY SCATTERED (EVEN IF UNCORRECTED) SO THAT NO AMBIGUITIES OR INTERFERENCE WITH EXPECTED TARGET INDICATIONS WOULD RESULT. IT IS THEREFORE RECOMMENDED THAT THE TARGET FLIGHTS BE PERFORMED AS SCHEDULED.

END OF QUOTE.

THE VENDOR HAS ASSUMED THAT FALSE ALARMS AT THE PRESENT RATE OR BACKGROUND INTERFERENCE THAT PRESENTLY EXISTS WILL NOT DEGRADE THE DATA FROM THE TARGET FLIGHTS AND DATA DERIVED FROM THE TARGET

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FLIGHTS CAN BE USED TO IMPROVE SYSTEM PERFORMANCE OVER WHAT IT NOW IS. BASED ON THIS RECOMMEND THE ONE BACKGROUND ON THE 29TH AND THE TARGET FLIGHTS GO AS PLANNED.

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